

WEST Search History

DATE: Tuesday, June 17, 2003

Set Name Query
side by side

Hit Count Set Name
result set

DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR

L6	L5 not l1	3	L6
L5	pantothenate adj kinase and (bacter\$ or Bacillus) and (antibacter\$5 or antibiotic or antimicrob\$5)	8	L5
L4	pntothenate adj kinase and (bacter\$ or Bacillus) and (antibacter\$5 or antibiotic or antimicrob\$5)	0	L4
L3	L1 not l2	7	L3
L2	L1 and (yacB or coax) with gene	3	L2
L1	pantothenate adj kinase same (gene polynucleotide nucle\$6 encod\$4)	10	L1

END OF SEARCH HISTORY

STN Search History

FILE 'HOME' ENTERED AT 08:12:42 ON 17 JUN 2003

L5 26 (PANTOTHENATE (A) KINASE (S) (GENE OR ENCOD#### OR POLYNUCLEOTID
 E# OR NUCLE#####)) AND (BACILLUS OR BACTER####)

(FILE 'HOME' ENTERED AT 08:12:42 ON 17 JUN 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH' ENTERED AT 08:13:18 ON
17 JUN 2003

L1 3 S (YACB OR CAOX) (L) (PANTOTHENATE OR BACILLUS OR BACTER####)
L2 30 S (YACB OR COAX) (L) (PANTOTHENATE OR BACILLUS OR BACTER####)
L3 23 DUP REM L2 (7 DUPLICATES REMOVED)
L4 0 S L1 AND YACB
L5 26 S (PANTOTHENATE (A) KINASE (S) (GENE OR ENCOD#### OR POLYNUCLEO
L6 13 DUP REM L5 (13 DUPLICATES REMOVED)
L7 11 S L6 NOT L3

- L3 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2003 ACS
TI Fermentative preparation of D-pantothenic acid by genetically engineered
Bacillus subtilis strains
IN Kruse, Daniela; Thierbach, Georg
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
- L3 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2003 ACS
TI Fermentative preparation of D-pantothenic acid by genetically engineered
Bacillus subtilis strains
IN Kruse, Daniela; Thierbach, Georg
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
- L3 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2003 ACS
TI Fermentative preparation of D-pantothenic acid by Bacillus subtilis
strains overexpressing genes serA, serC, ywpJ, and glyA
IN Kruse, Daniela; Thierbach, Georg
SO PCT Int. Appl., 23 pp.
CODEN: PIXXD2
- L3 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2003 ACS
TI Microorganisms and processes for enhanced production of pantothenate
IN Yocum, Roger R.; Patterson, Thomas A.; Pero, Janice G.; Hermann, Theron
SO PCT Int. Appl., 66 pp.
CODEN: PIXXD2
- L3 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2003 ACS
TI Processes for enhanced production of pantothenate
IN Hermann, Theron; Patterson, Thomas A.; Pero, Janice G.; Yocum, Roger R.;
Baldenius, Kai-Uwe; Beck, Christine
SO PCT Int. Appl., 93 pp.
CODEN: PIXXD2
- L3 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2003 ACS
TI Microorganisms and assays for the identification of antibiotics acting on
the **pantothenate** kinase encoded by the **coaX** gene
IN Yocum, R. Rogers; Patterson, Thomas A.
SO PCT Int. Appl., 128 pp.
CODEN: PIXXD2
- L3 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2003 ACS
TI The effects of bonding procedures on demineralized dentine
AU Pashley, D. H.; Carvalho, R. M.
SO Dentin/Pulp Complex, Proceedings of the International Conference on
Dentin/Pulp Complex, 4th, Chiba, Japan, 2001 (2002), Meeting Date 2001,
64-70. Editor(s): Ishikawa, Tatsuya. Publisher: Quintessence Publishing
Co., Ltd., Tokyo, Japan.
CODEN: 69DJTU; ISBN: 4-87417-733-6
- L3 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2003 ACS
TI Cloning and characterization of pantothenate biosynthetic enzymes and
methods and microorganisms for production of panto-compounds
IN Yocum, Rogers R.; Patterson, Thomas A.; Hermann, Theron; Pero, Janice G.
SO PCT Int. Appl., 292 pp.
CODEN: PIXXD2
- L3 ANSWER 9 OF 23 MEDLINE DUPLICATE 1
TI Cooperation in the dark: signalling and collective action in
quorum-sensing bacteria.

AU Brown S P; Johnstone R A
SO PROCEEDINGS OF THE ROYAL SOCIETY OF LONDON. SERIES B: BIOLOGICAL SCIENCES,
(2001 May 7) 268 (1470) 961-5.
Journal code: 7505889. ISSN: 0962-8452.

L3 ANSWER 10 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
2
TI Enhancement of activity of *Bacillus thuringiensis* Berliner against four
lepidopterous insect pests by nutrient-based phagostimulants.
AU Farrar, Robert R., Jr.; Ridgway, Richard L.
SO Journal of Entomological Science, (1995) Vol. 30, No. 1, pp. 29-42.
ISSN: 0749-8004.

L3 ANSWER 11 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
3
TI Palatability of flour granular formulations to European corn borer larvae
(Lepidoptera: Pyralidae.
AU Gillespie, Robert L.; McGuire, Michael R. (1); Shasha, Baruch S.
SO Journal of Economic Entomology, (1994) Vol. 87, No. 2, pp. 452-457..
ISSN: 0022-0493.

L3 ANSWER 12 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI COLORADO POTATO BEETLE COLEOPTERA CHRYSOMELIDAE CONSUMPTION OF FOLIAGE
TREATED WITH BACILLUS-THURINGIENSIS-VAR-SAN-DIEGO AND VARIOUS FEEDING
STIMULANTS.
AU HOUGH-GOLDSTEIN J; TISLER A M; ZEHNDER G W; UYEDA K A
SO J ECON ENTOMOL, (1991) 84 (1), 87-93.
CODEN: JEENAI. ISSN: 0022-0493.

L3 ANSWER 13 OF 23 SCISEARCH COPYRIGHT 2003 THOMSON ISI
TI COLORADO POTATO BEETLE (COLEOPTERA, CHRYSOMELIDAE) CONSUMPTION OF FOLIAGE
TREATED WITH BACILLUS-THURINGIENSIS VAR SAN-DIEGO AND VARIOUS FEEDING
STIMULANTS
AU HOUGHGOLDSTEIN J (Reprint); TISLER A M; ZEHNDER G W; UYEDA K A
SO JOURNAL OF ECONOMIC ENTOMOLOGY, (1991) Vol. 84, No. 1, pp. 87-93.

L3 ANSWER 14 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI FIELD EVALUATION OF GRANULAR STARCH FORMULATIONS OF BACILLUS-THURINGIENSIS
AGAINST OSTRINIA-NUBILALIS LEPIDOPTERA PYRALIDAE.
AU MCGUIRE M R; SHASHA B S; LEWIS L C; BARTELT R J; KINNEY K
SO J ECON ENTOMOL, (1990) 83 (6), 2207-2210.
CODEN: JEENAI. ISSN: 0022-0493.

L3 ANSWER 15 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI FEEDING STIMULANTS FOR THE EUROPEAN CORN BORER LEPIDOPTERA PYRALIDAE
ADDITIVES TO A STARCH-BASED FORMULATION FOR BACILLUS-THURINGIENSIS.
AU BARTELT R J; MCGUIRE M R; BLACK D A
SO ENVIRON ENTOMOL, (1990) 19 (1), 182-189.
CODEN: EVETBX. ISSN: 0046-225X.

L3 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 4
TI Phagostimulants enhancing the efficacy of *Bacillus thuringiensis*
formulations against the giant looper, *Boarmia (Ascotis) selenaria*, in
avocado
AU Meisner, J.; Hadar, D.; Wysoki, M.; Harpaz, I.
SO Phytoparasitica (1990), 18(2), 107-15
CODEN: PHPRA2; ISSN: 0334-2123

L3 ANSWER 17 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI INFLUENCE OF BAIT FORMULATIONS ON THE EFFECTIVENESS OF
BACILLUS-THURINGIENSIS AGAINST SPODOPTERA-LITTORALIS LEPIDOPTERA

NOCTUIDAE.

- AU EL-NOCKRASHY A S; SALAMA H S; TAHA F
SO J APPL ENTOMOL, (1986) 101 (4), 381-389.
CODEN: JOAEEB.
- L3 ANSWER 18 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI EVALUATION OF THE EFFECTIVENESS OF BACILLUS-THURINGIENSIS-VAR-ENTOMOCIDUS
AS A PEST CONTROL AGENT TO REPLACE CHEMICAL PESTICIDES IN ALFALFA FIELDS
IN ISRAEL.
AU BROZA M; SNEH B; LEVI M
SO ANZ SCHAEDLINGSKD PFLANZENSCHUTZ UMWELTSCHUTZ, (1986) 59 (8), 152-156.
CODEN: ASPUCR. ISSN: 0340-7322.
- L3 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2003 ACS
TI Effects of neem kernel extracts on the fall armyworm, Spodoptera
frugiperda
AU Hellpap, C.
SO Schriftenreihe der GTZ (1984), 161(Nat. Pestic. Neem Tree Other Top.
Plants), 353-63
CODEN: SGTZE8; ISSN: 0723-9637
- L3 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 5
TI Cotton insect pests: field evaluation of selected insecticide treatments
AU DuRant, John A.
SO Journal of Agricultural Entomology (1984), 1(3), 201-11
CODEN: JAENES; ISSN: 0735-939X
- L3 ANSWER 21 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI BIOLOGICAL CONTROL OF THE EGYPTIAN COTTON LEAFWORM SPODOPTERA-LITTORALIS
LEPIDOPTERA NOCTUIDAE IN COTTON AND ALFALFA FIELDS USING A PREPARATION OF
BACILLUS-THURINGIENSIS-SSP-ENTOMOCIDUS SUPPLEMENTED WITH ADJUVANTS.
AU SNEH B; GROSS S
SO Z ANGEW ENTOMOL, (1983) 95 (4), 418-424.
CODEN: ZANEAE. ISSN: 0044-2240.
- L3 ANSWER 22 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI IMPROVEMENT OF THE INSECTICIDAL ACTIVITY OF BACILLUS-THURINGIENSIS-VAR-
ENTOMOCIDUS ON LARVAE OF SPODOPTERA-LITTORALIS LEPIDOPTERA NOCTUIDAE BY
ADDITION OF CHITINOLYTIC BACTERIA A PHAGOSTIMULANT AND A UV-PROTECTANT.
AU SNEH B; SCHUSTER S; GROSS S
SO Z ANGEW ENTOMOL, (1983 (RECD 1985)) 96 (1), 77-83.
CODEN: ZANEAE. ISSN: 0044-2240.
- L3 ANSWER 23 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI SUPPRESSION OF HELIOTHIS-SPP ON COTTON BY USING BACILLUS-THURINGIENSIS
BACULOVIRUS-HELIOTHIS AND 2 FEEDING ADJUVANTS.
AU JOHNSON D R
SO J ECON ENTOMOL, (1982) 75 (2), 207-210.
CODEN: JEENAI. ISSN: 0022-0493.

L3 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2003 ACS
 AN 2003:42429 CAPLUS
 DN 138:88760
 TI Fermentative preparation of D-pantothenic acid by genetically engineered
 Bacillus subtilis strains
 IN Kruse, Daniela; Thierbach, Georg
 PA Degussa A.-G., Germany
 SO PCT Int. Appl., 24 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003004673	A1	20030116	WO 2002-EP5961	20020531
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10132179	A1	20030123	DE 2001-10132179	20010703
PRAI	DE 2001-10132179	A	20010703		
	US 2001-303788P	P	20010710		
AB	The invention provides a process for the fermentative prepn. of D-pantothenic acid or its salts by fermn. of microorganisms of the Bacillus group for use as feed additives. In particular the invention applies to strains of Bacillus subtilis which already produce D-pantothenic acid, and which have had the expression of the genes azlC, azlD, ydaP, pckA, ywaA, ybgE, ansB, alsD, coaA, and coaX and the activity of the proteins they encode reduced or eliminated.				
RE.CNT	5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L3 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2003 ACS
 AN 2003:42428 CAPLUS
 DN 138:88759
 TI Fermentative preparation of D-pantothenic acid by Bacillus subtilis
 strains overexpressing genes serA, serC, ywpJ, and glyA
 IN Kruse, Daniela; Thierbach, Georg
 PA Degussa AG, Germany
 SO PCT Int. Appl., 23 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003004672	A1	20030116	WO 2002-EP5960	20020531
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10132178 A1 20030123 DE 2001-10132178 20010703

PRAI DE 2001-10132178 A 20010703

US 2001-303786P P 20010710

AB The invention provides a process for the fermentative prepn. of D-pantothenic acid or its salts by fermn. of microorganisms of the **Bacillus** group for use as feed additives. In particular the invention applies to strains of **Bacillus subtilis** which already produce D-pantothenic acid, and which have had the expression of the genes serA, serC, ywpJ, and glyA overexpressed while the genes ywaA, ybgE, ansB, alsD, coaA, and **coaX** and the activity of the proteins they encode are reduced or eliminated.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2003 ACS

AN 2002:595032 CAPLUS

DN 137:153936

TI Microorganisms and processes for enhanced production of pantothenate

IN Yocum, Roger R.; Patterson, Thomas A.; Pero, Janice G.; Hermann, Theron

PA Omnigene Bioproducts, Inc., USA

SO PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2002061108	A2	20020808	WO 2002-US925	20020118
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PL,
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-262995P P 20010119

US 2001-263053P P 20010119

US 2002-347638P P 20020111

AB The present invention features improved methods for the enhanced prodn. of pantoate and pantothenate utilizing microorganisms having modified pantothenate biosynthetic enzyme activities and having modified methylenetetrahydrofolate (MTF) biosynthetic enzyme activities. In particular, the invention features methods for enhancing prodn. of desired products by increasing levels of a key intermediate, ketopantoate by enzymes that contribute to its synthesis. Recombinant microorganisms and conditions for culturing same are also are featured. Also featured are compns. produced by such microorganisms.

L3 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2003 ACS

AN 2002:555675 CAPLUS

DN 137:124295

TI Processes for enhanced production of pantothenate

IN Hermann, Theron; Patterson, Thomas A.; Pero, Janice G.; Yocum, Roger R.;

Baldenius, Kai-Uwe; Beck, Christine

PA Omnigene Bioproducts Inc., USA

SO PCT Int. Appl., 93 pp.

CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002057474	A2	20020725	WO 2002-US1842	20020119
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 2001-262995P	P	20010119		
AB	The present invention features improved methods for producing pantoate and pantothenate utilizing microorganisms having modified pantothenate biosynthetic enzyme activities. In particular, the invention features methods for reducing byproduct formation and increasing yields and purity of desired product. Recombinant microorganisms and conditions for culturing same are also are featured. Also featured are compns. produced by such microorganisms.				

L3 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2003 ACS

AN 2002:157991 CAPLUS

DN 136:194232

TI Microorganisms and assays for the identification of antibiotics acting on the **pantothenate** kinase encoded by the **coaX** gene

IN Yocum, R. Rogers; Patterson, Thomas A.

PA Omnigene Bioproducts, Inc., USA

SO PCT Int. Appl., 128 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002016601	A2	20020228	WO 2001-US26531	20010824
	WO 2002016601	A3	20030123		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	US 2002168681	A1	20021114	US 2001-813453	20010320
	AU 2001085276	A5	20020304	AU 2001-85276	20010824
	EP 1313859	A2	20030528	EP 2001-964422	20010824
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRAI	US 2000-227860P	P	20000824		
	US 2001-813453	A	20010320		
	WO 2001-US26531	W	20010824		
AB	The present invention features methods for the identification of compds. and compns. useful as antibiotics and antibacterial agents. In				

particular, the invention features methods for the identification of modulators of a previously unidentified target protein, termed **CoaX**. High-throughput assay systems are featured as well as assay kits for the identification of **CoaX** modulators. Also featured are **coaX** nucleic acid mols. and purified **CoaX** proteins, as well as recombinant vectors and microorganisms including the gene, **coaX**. The first **pantothenate** kinase gene of **Bacillus subtilis**, **coaA**, was identified by sequence homol. The **coaA** gene was found to be dispensable for growth, indicating the presence of a second **pantothenate** kinase gene. Deletion of **coaA** and **coaX** was lethal to **Bacillus subtilis**. The gene **coaA** **pantothenate** kinase is the conventional **pantothenate** kinase, but sequence homologs of the **coaX** gene were found in a no. of human pathogens. An *Escherichia coli* host contg. a temp.-sensitive allele of the **coaA** gene is developed for use as a host for foreign **coaX** genes for use in antibiotic screening. The **coaA** gene product is inactive at >43.degree.. Growth at elevated temps. is therefore dependent upon the **coaX** gene product.

- L7 ANSWER 1 OF 11 MEDLINE
 TI Cloning and characterization of a novel human **pantothenate kinase gene**.
 AU Ni Xiaohua; Ma Yushu; Cheng Haipeng; Jiang Min; Ying Kang; Xie Yi; Mao Yumin
 SO INTERNATIONAL JOURNAL OF BIOCHEMISTRY AND CELL BIOLOGY, (2002 Feb) 34 (2) 109-15.
 Journal code: 9508482. ISSN: 1357-2725.
- L7 ANSWER 2 OF 11 MEDLINE
 TI Cloning and characterization of a eukaryotic **pantothenate kinase gene** (panK) from *Aspergillus nidulans*.
 AU Calder R B; Williams R S; Ramaswamy G; Rock C O; Campbell E; Unkles S E; Kinghorn J R; Jackowski S
 SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1999 Jan 22) 274 (4) 2014-20.
 Journal code: 2985121R. ISSN: 0021-9258.
- L7 ANSWER 3 OF 11 MEDLINE
 TI Cloning, sequencing, and expression of the **pantothenate kinase** (coaA) **gene** of *Escherichia coli*.
 AU Song W J; Jackowski S
 SO JOURNAL OF BACTERIOLOGY, (1992 Oct) 174 (20) 6411-7.
 Journal code: 2985120R. ISSN: 0021-9193.
- L7 ANSWER 4 OF 11 MEDLINE
 TI Isolation and characterization of temperature-sensitive pantothenate kinase (coaA) mutants of *Escherichia coli*.
 AU Vallari D S; Rock C O
 SO JOURNAL OF BACTERIOLOGY, (1987 Dec) 169 (12) 5795-800.
 Journal code: 2985120R. ISSN: 0021-9193.
- L7 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2003 ACS
 TI Analysis of the chromosome sequence of the legume symbiont *Sinorhizobium meliloti* strain 1021
 AU Capela, Delphine; Barloy-Hubler, Frederique; Gouzy, Jerome; Bothe, Gordana; Ampe, Frederic; Batut, Jacques; Boistard, Pierre; Becker, Anke; Boutry, Marc; Cadieu, Edouard; Dreano, Stephane; Gloux, Stephanie; Godrie, Therese; Goffeau, Andre; Kahn, Daniel; Kiss, Erno; Lelaure, Valerie; Masuy, David; Pohl, Thomas; Portetelle, Daniel; Puhler, Alfred; Purnelle, Benedicte; Ramsperger, Ulf; Renard, Clotilde; Thebault, Patricia; Vandenbol, Micheline; Weidner, Stefan; Galibert, Francis
 SO Proceedings of the National Academy of Sciences of the United States of America (2001), 98(17), 9877-9882
 CODEN: PNASA6; ISSN: 0027-8424
- L7 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2003 ACS
 TI Novel **bacterial** genes and proteins that are essential for cell viability and their uses
 IN Dougherty, Thomas J.; Pucci, Michael J.; Dougherty, Brian A.; Davison, Daniel B.; Bruccoleri, Robert E.; Thanassi, Jane A.
 SO PCT Int. Appl., 380 pp.
 CODEN: PIXXD2
- L7 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2003 ACS
 TI Pantothenate kinase regulation of the intracellular concentration of coenzyme A
 AU Rock, Charles O.; Calder, Robert B.; Karim, Mohammad A.; Jackowski, Suzanne
 SO Journal of Biological Chemistry (2000), 275(2), 1377-1387
 CODEN: JBCHA3; ISSN: 0021-9258

L7 ANSWER 8 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 TI An isoform of hPANK2, deficient in pantothenate kinase-associated
 neurodegeneration, localizes to mitochondria.
 AU Hoertnagel, Konstanze (1); Prokisch, Holger; Meitinger, Thomas
 SO Human Molecular Genetics, (1 February 2003) Vol. 12, No. 3, pp. 321-327.
 print.
 ISSN: 0964-6906.

L7 ANSWER 9 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 TI Dissecting the role of panR in pantothenate biosynthesis and regulation in
 Salmonella typhimurium.
 AU Rubio, A. (1); Downs, D. M. (1)
 SO Abstracts of the General Meeting of the American Society for Microbiology,
 (1999) Vol. 99, pp. 403.
 Meeting Info.: 99th General Meeting of the American Society for
 Microbiology Chicago, Illinois, USA May 30-June 3, 1999 American Society
 for Microbiology
 . ISSN: 1060-2011.

L7 ANSWER 10 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 TI Kinetics and regulation of pantothenate kinase from Escherichia coli.
 AU Song, Woo-Joo; Jackowski, Suzanne (1)
 SO Journal of Biological Chemistry, (1994) Vol. 269, No. 43, pp. 27051-27058.
 ISSN: 0021-9258.

L7 ANSWER 11 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 TI ISOLATION OF TEMPERATURE SENSITIVE **PANTOTHENATE KINASE**
 MUTANTS OF SALMONELLA-TYPHIMURIUM AND MAPPING OF THE COAA **GENE**.
 AU DUNN S D; SNELL E E
 SO J BACTERIOL, (1979 (RECD 1980)) 140 (3), 805-808.
 CODEN: JOBAAY. ISSN: 0021-9193.

L7 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 2001:507732 CAPLUS

DN 135:103458

TI Novel **bacterial** genes and proteins that are essential for cell viability and their uses

IN Dougherty, Thomas J.; Pucci, Michael J.; Dougherty, Brian A.; Davison, Daniel B.; Bruccoleri, Robert E.; Thanassi, Jane A.

PA Bristol-Myers Squibb Company, USA

SO PCT Int. Appl., 380 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001049721	A2	20010712	WO 2000-US35604	20001229
	WO 2001049721	A3	20020912		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	EP 1261630	A2	20021204	EP 2000-992297	20001229
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRAI	US 1999-174089P	P	19991230		
	WO 2000-US35604	W	20001229		

AB The present invention provides novel **bacterial** genes and their encoded polypeptides thereof which are essential for **bacterial** cell viability, and their uses. Conserved essential gene (ceg) nucleotide sequences of the invention were obtained by large-scale computational comparisons of multiple genome sequences to identify conserved protein coding regions, followed by gene disruption to identify cegs. The conservation of protein sequences in many cases is believed to reflect the higher level conservation of common biochem. pathways essential for **bacterial** function and viability. A procedure is provided to generate recombinant vectors of pEVP-3 having inserts of candidate ceg nucleotide sequences. Knockout primers are used to generate DNA fragments comprising candidate ceg sequences. The high throughput gene disruption procedure used in *Streptococcus pneumoniae* identified 113 candidate genes and their encoded protein sequences. **Bacterial** gene sequences that encode gene products essential for **bacterial** cell viability are useful in strategies for developing new antimicrobial agents.

L7 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 2000:73364 CAPLUS

DN 132:204696

TI Pantothenate kinase regulation of the intracellular concentration of coenzyme A

AU Rock, Charles O.; Calder, Robert B.; Karim, Mohammad A.; Jackowski, Suzanne

CS Department of Biochemistry, St. Jude Children's Research Hospital, Memphis, TN, 38105, USA

SO Journal of Biological Chemistry (2000), 275(2), 1377-1387
CODEN: JBCHA3; ISSN: 0021-9258

PB American Society for Biochemistry and Molecular Biology

DT Journal
LA English
AB Pantothenate kinase (PanK) is the key regulatory enzyme in the CoA biosynthetic pathway in **bacteria** and is thought to play a similar role in mammalian cells. We examd. this hypothesis by identifying and characterizing two murine cDNAs that encoded PanK. The two cDNAs were predicted to arise from alternate splicing of the same gene to yield different mRNAs that encode two isoforms (mPanK1.alpha. and mPanK1.beta.) with distinct amino termini. The predicted protein sequence of mPanK1 was not related to **bacterial** PanK but exhibited significant similarity to *Aspergillus nidulans* PanK. MPanK1.alpha. was most highly expressed in heart and kidney, whereas mPanK1.beta. mRNA was detected primarily in liver and kidney. Pantothenate was the most abundant pathway component (42.8%) in normal cells providing clear evidence that pantothenate phosphorylation was a rate-controlling step in CoA biosynthesis. Enhanced mPanK1.beta. expression eliminated the intracellular pantothenate pool and triggered a 13-fold increase in intracellular CoA content. MPanK1.beta. activity in vitro was stimulated by CoA and strongly inhibited by acetyl-CoA illustrating that differential modulation of mPanK1.beta. activity by pathway end products also contributed to the management of CoA levels. These data support the concept that the expression and/or activity of PanK is a detg. factor in the physiol. regulation of the intracellular CoA concn.

RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1994:551617 BIOSIS
DN PREV199598011165
TI Kinetics and regulation of pantothenate kinase from *Escherichia coli*.
AU Song, Woo-Joo; Jackowski, Suzanne (1)
CS (1) Dep. Biochem., St. Jude Children's Res. Hosp., 332 North Lauderdale, Memphis, TN 38101 USA
SO Journal of Biological Chemistry, (1994) Vol. 269, No. 43, pp. 27051-27058. ISSN: 0021-9258.
DT Article
LA English
AB **Pantothenate kinase** catalyzes the rate-controlling step in coenzyme A (CoA) biosynthesis and is regulated by feedback inhibition by CoA. **Pantothenate kinase** was purified to homogeneity from *Escherichia coli* and was shown to exist as a homodimer. Kinetic analysis indicated the presence of two ATP binding sites that exhibited positive cooperativity with a Hill coefficient of 1.46. Site-directed mutagenesis of lysine 101 to methionine (K101M) resulted in the inactivation of the enzyme, although dimer formation was not altered. The K101M mutant was unable to bind either adenosine 5'-O-(3-thiotriphosphate) or CoA, supporting the conclusion from kinetic analysis that both the substrate and inhibitor bind to the same site on the enzyme. CoA binding was not cooperative. Coexpression of the K101M mutant **gene** on a high copy number plasmid in the presence of a chromosomal copy of the wild-type **gene** resulted in the production of heterodimers between active and inactive subunits. Kinetic analysis of the chimeric heterodimers showed the absence of cooperative ATP interactions and indicated a sequential kinetic mechanism for **pantothenate kinase** with ATP binding first and pantothenate second. Thus, **pantothenate kinase** regulation involves the competitive binding of CoA to the ATP site, which blocks ATP binding at one site and prevents positive cooperative ATP binding to the second site on the dimer.